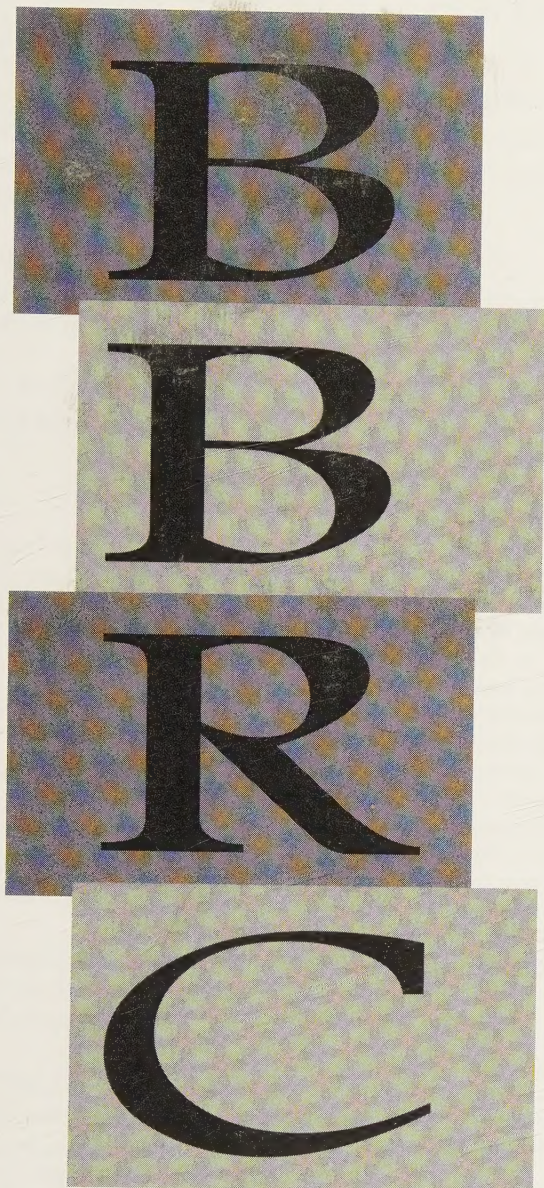




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Volume 235, Number 2 (1997): Masahiro Tanemura, Shuji Miyagawa, Yoshito Ihara, Hikaru Matsuda, Ryota Shirakura, and Naoyuki Taniguchi, "Significant Down-regulation of the Major Swine Xenoantigen by N-Acetylglucosaminyltransferase III Gene Transfection," pp. 359–364 **686**

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